

REMARKS/ARGUMENTS

Claims 1-21 and 23-26 are pending in this application. By this Amendment, claims 1, 4-6, 8, 10, and 16-18 are amended and claim 26 is added. Applicant respectfully submits that no new matter is added. Reconsideration in view of the above amendments and the following remarks is respectfully requested.

Applicant sincerely acknowledges the Office Action's indication that claims 9 and 23-25 define patentable subject matter. However, for at least the reasons set forth below, Applicant respectfully submits all pending claims are in condition for allowance.

Applicant sincerely acknowledges the October 4, 2005 Patent Office Communication withdrawing the finality of the September 22, 2005 Office Action.

A. The Office Action rejects claims 1-3 under 35 U.S.C. §103(a) over U.S. Patent No. 6,694,442 to Yeh and U.S. Patent No. 5,719,510 to Weidner. The Office Action further rejects claim 4 under 35 U.S.C. § 103(a) over Yeh, Wiedner and U.S. Patent No. 6,079,022 to Young. The Office Action rejects claims 5-7 and 17-20 under 35 U.S.C. § 103(a) over Yeh and U.S. Patent No. 6,609,211 to Atkinson. The Office Action rejects claims 8, 11, 16 and 21 under 35 U.S.C. § 103(a) over Yeh, Weidner and Atkinson. The Office Action rejects claim 10 under 35 U.S.C. § 103(a) over Yeh, Weidner, Atkinson and Young. Finally, the Office Action rejects claims 12-15 under 35 U.S.C. §

103(a) over Yeh, Weidner, Atkinson and Parrish. Since the references, individually or in combination, fail to disclose or suggest all the features in the claims, the rejections are respectfully traversed.

1. The Office Action asserts that Yeh discloses with respect to the independent claims such as independent claim 1, setting a throttle rate of a clock to a predetermined initial value, the clock being used for a data bus connected between a CPU and a controlling device, detecting a user's pressing of a button if a power source is battery and adjusting the set throttle rate according to the user's button press. Further, the Office Action asserts Weidner discloses detecting a remaining battery capacity, and adjusting the set throttle rate according to the detected remaining battery capacity. See page 2, Item 6 of the Office Action.

Applicant respectfully submits that generally Yeh is directed toward event controllers 70, 270 that place system controller 30 and CPU 20 into an idle/suspended state in which a clock control signal 47, 247 from the event controllers 70, 270 can drive a clock generator 40 to change the host clock signal 34, 234 to a new frequency in the idle/suspended state, and then the event controllers 70, 270 activate the CPU and system controller from the idle/suspended state. Beneficially, Yeh reduces the likelihood that system components will crash when the frequency of their timing signals is changed.

See column 6, line 40-52 of Yeh. A system controller 30, 230 of Yeh does not change the frequency of the host clock signal 34, 234 when providing the same for a front bus 32, 232, a memory bus 35, 235 and a video bus 36, 236, but merely passes through the received host clock signal 34, 234 unchanged.

Thus, Applicant respectfully submits that Yeh does not teach or suggest adjusting the set throttle rate by the controlling device, for example, of a host bus such as a bus between a CPU and a controlling device, according to the detected remaining battery capacity and combinations thereof as recited in claim 1.

The March 1, 2005 Final Office Action asserts that the host clock signal (i.e., host clock signal 234) may be altered citing column 6, lines 19-26 of Yeh and therefore the host clock signal is modifiable, not just passed through the system controller 230. See Item 12, lines 8-9, on page 19 of the Final Office Action. Applicant respectfully submits that host clock signal 234 is modifiable by the clock generator 240, but once set, the host clock signal 234 is provided to the system controller 230 and passed through unchanged to the front side bus 232 that is between the CPU 220 and the system controller 230.

The host clock signal is also provided unchanged to the memory bus 235 and the video bus 236. See column 6, lines 10-26 of Yeh.

The September 22, 2005 Office Action asserts Yeh discloses the controlling device 30 “indirectly” adjusts the set throttle rate because the event controllers 70, 270 can change the clock control signal 47, 247 during idle/suspended state. Accordingly, Applicant respectfully submits that Yeh does not teach or suggest at least features of adjusting the set throttle rate by the controlling device according to the detected remaining battery capacity, wherein the set throttle rate is adjusted when the controlling device is providing the clock to the data bus between the CPU and the controlling device and combinations thereof as recited in claim 1. Also, Applicant respectfully submits that Yeh does not teach or suggest setting a clock control signal 47, 247 based on a remaining battery capacity or CPU load.

Further, Applicant respectfully submits that Yeh does not teach or suggest at least features of a second clock and the throttle rate of the clock and combinations thereof as recited in dependent claim 4.

In addition, Applicant respectfully submits that Yeh does not teach or suggest at least features of adjusting the set throttle rate according to the detected remaining battery capacity or the CPU load, wherein a second clock is provided to the controlling device and the CPU, and wherein the throttle rate of the clock is set independently of

the second clock, and wherein the clock has a different value than the second clock and combinations thereof as recited in claim 16.

In addition, Applicant respectfully submits that Yeh does not teach or suggest at least features of adjusting the set throttle rate using the controlling device according to the detected condition, wherein a first clock is provided to the controlling device and a second clock is provided the CPU, and wherein the throttle rate of the clock is set independently of the first clock and the second clock, and wherein the clock has a different value than the first clock and the second clock and combinations thereof as recited in claim 17.

2. Applicant respectfully submits that Weidner does not teach or suggest adjusting the set throttle rate using the controlling device, for example, of a host bus such as a bus between a CPU and a controlling device, according to the detected remaining battery capacity or based on CPU load as variously recited in claims 1, 5, 8, 16, 17 and 21. In contrast, Applicant respectfully submits that Weidner discloses a clock generator where a software controller can select a clock output signal frequency based on amount of power. Thus, Weidner's clock generator could replace the clock generator 240 in Yeh but does not teach or suggest, for example, a throttle rate of a clock for a bus such as between a CPU and a controller.

In contrast, one embodiment of the present invention adjusts a set throttle rate of a host bus (e.g., between a CPU and a controlling device) using the controlling device according to a detected remaining battery capacity or based on a CPU load. Thus, Applicant respectfully submits that Weidner does not teach or suggest adjusting the set throttle rate, for example, of a host bus such as a bus between a CPU and a controlling device, according to the detected remaining battery capacity or based on CPU load as variously recited in claims 1, 5, 8, 16, 17 and 21.

Summary

In embodiments according to the invention, a host bus (e.g., between CPU and controller) clock is adjusted by using a throttling technology based on a remaining battery or CPU load (e.g., usage). However, Applicant respectfully submits that Yeh and Weidner do not disclose or teach adjusting of a throttle rate of a bus (e.g., host bus between a CPU and controller clock) clock based on a remaining battery or CPU load and combinations thereof as recited.

3. Applicant expressly maintains the reasons from the response of May 17, 2005 and previous responses to clearly indicate on the record that Applicant has not conceded any of the previous positions relative to the outstanding rejections regarding the allowability of the pending claims.

4. Applicant respectfully submits that Weidner, Young, Atkinson and Parrish do not teach or suggest at least features of a bus clock controlling method in a computer and combinations thereof or a computer and combinations thereof as variously recited in the independent claims and lacking from Yeh. Thus, Applicant respectfully submits that Yeh, Weidner, Young, Atkinson and Parrish, individually or in combination, would not result in at least features of a bus clock controlling method in a computer including setting the throttle rate of a clock, the clock configured to set a speed of a data bus connected between a CPU and the controlling device, detecting a remaining battery capacity and adjusting the set throttle rate by the controlling device according to the detected remaining battery capacity and combinations thereof as recited in claim 1.

In addition, Applicant respectfully submits that Yeh, Weidner, Young, Atkinson and Parrish, individually or in combination, would not result in at least features of a second clock and the throttle rate of the clock and combinations thereof as recited in claim 4 or features of adjusting the set throttle rate, wherein a second clock is provided to the controlling device and the CPU, and wherein the throttle rate of the clock is set independently of the second clock, and wherein the clock has a different value than the second clock and combinations thereof as recited in claim 16 or features of adjusting the

set throttle rate, wherein a first clock is provided to the controlling device and a second clock is provided the CPU, and wherein the throttle rate of the clock is set independently of the first clock and the second clock, and wherein the clock has a different value than the first clock and the second clock and combinations thereof as recited in claim 17.

For at least the reasons set forth above, Applicant respectfully submits claims 1, 4 and 16-17 define patentable subject matter. Claim 8 defines patentable subject matter for at least reasons similar to claim 16. Claims 5 and 21 define patentable subject matter for at least reasons similar to claim 1. Claims 2-4, 6-7, 10-15, 18-20 depend from claims 1, 5, 8 and 17, respectively, and therefore also define patentable subject matter for at least that reason as well as their additionally recited features. Withdrawal of the rejection of claims 1-8 and 10-21 under §103 is respectfully requested.

B. Claim 26 is newly added by this amendment and believed to be in condition for allowance.

C. Statement of the Substance of the Interview:

Applicant gratefully acknowledges the courtesies extended by Examiner Du to Applicant's representative, Carl Wesolowski, during a December 12, 2005 personal

interview. The substance of the personal interview is incorporated in the following remarks.

Independent claims 1, 5, 8 and 16-17 were discussed with respect to the applied references including Hsu. Applicant asserted that the applied references, individually or in combination, did not teach or suggest at least features of wherein the set throttle rate is adjusted when the controlling device is providing the clock to the data bus and combinations thereof as variously recited in claims 1 and 5, or features of wherein the second clock is provided to the controlling device and the CPU, and wherein the throttle rate of the clock is set independently of the second clock and combinations thereof as recited in claim 16. However, no agreement was reached and Examiner Du indicated a further search would be conducted.

No exhibit was presented or demonstration conducted during the interview.

Applicant respectfully requests that this paper be included in the record for purposes of satisfying the requirements under MPEP §713.04.

CONCLUSION

In view of the foregoing amendments and remarks, it is respectfully submitted that the application is in condition for allowance. Favorable consideration and prompt allowance are earnestly solicited.

Serial No. 10/022,208
Reply to Office Action of October 4, 2005

Docket No. LT-0007

If the Examiner believes that any additional changes would place the application in better condition for allowance, the Examiner is invited to contact the undersigned attorney, Carl R. Wesolowski, at the telephone number listed below.

To the extent necessary, a petition for an extension of time under 37 C.F.R. 1.136 is hereby made. Please charge any shortage in fees due in connection with the filing of this, concurrent and future replies, including extension of time fees, to Deposit Account 16-0607 and please credit any excess fees to such deposit account.

Respectfully submitted,
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